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1 Shams, M.D., Kerlavage, A.R., Fleischmann, R.D., Fuldner, R.A.,
1 Shit, C.J., Lee, N.H., Kirkness, E.F., Weinstock, G., Goozyne, J.D.,
1 White, O., Sutton, G., Blake, J.A., Brandon, R.C., Man-Wai, C.,
1 Clayton, R.A., Cline, T.R., Cotton, M.D., Earle-Hughes, J., Fine, L.D.,
1 Fitzgerald, L.M., Fitzhugh, W.M., Fritchman, J.L., Geoghagen, N.S.,
1 Glodek, A., Gnehm, C.L., Hanna, M.C., Hedblom, E., Hinkle, P.S.Jr.,
1 Kelley, J.M., Kelley, J.C., Liu, L.-I., Marmaros, S.M., Merrick, J.M.,
1 Moreno-Palanques, R.F., McDonald, L.A., Nguyen, D.T., Pelligrino, S.M.,
1 Phillips, C.A., Ryder, S.E., Scott, J.L., Saudek, D.M., Shritey, R.,
1 Small, K.V., Spriggs, T.A., Utterback, T.R., Weddman, J.F., Li, Y.,
1 Bednarik, D.P., Cao, L., Cepeda, M.A., Coleman, T.A., Collins, E.J.,
1 He, W.W., Hu, J.S., Greene, J.M., Gruber, J., Hudson, P., Kan, A.K.,
1 Kaymond, L., Wei, Y.F., Wing, J., Xu, C., Yu, G.L., Ruben, S.M.,
1 Plillon, P.J., Fannon, M.R., Rosen, C.A., Haseltine, W.A., Fields, C.,
1 L.L., M., M., A., A., A., A., A., Fields, C.,
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Initial assessment of human gene diversity and expression patterns based-upon-83-million.nuclectides of CDNA sequence
Nature 377 (6547 Suppl), 3-174 (1995)
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Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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EST178050 Colon carcinoma (HCC) cell line Homo saplens cDNA 5'
mRNA sequence.
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9712 Medical Center Drive, Rockville, MD 20850 USA
Tel: 3018699056
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/ Ab_xref="taxoc (inhost):108677"

/ Ab_xref="taxoc (inhost):108677"

/ Alsae_type="colon carcinoma (HCC) cell line"

/ Call_type="colon"

/ Cell_type="kM12C"

/ Cell_line="KM12C"

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/ Cell_line="KM12C"

/ Cell_line" TM12C (HCC)

/ Cell_line="KM12C"

/ Cell_line" TM12C (HCC)

/ Cell_line" TM
Eax: 3018699423
Email: arkerlav@tigr.org
Email: arkerlav@tigr.org

Email: arkerlav@tigr.org

### Additional sequence and expression

#### Information related to this EST, please check the TiGR Human Gene
Index (http://www.tigr.org/tdb/hgi/hgi.html)

Seq primer: M13 Reverse.
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Homo sapiens cDNA clone IMAGE:1896621 3',
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Homo sapiens
Eukaryota; Metazoa; Chordata; Vertebrata; Mammalia; Eutheria;
Primates; Catarhini; Hominidae; Homo.
1 (bases 1 to 439)
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Pred. No. 1.4e-114;
0; Mismatches 7;
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Best Local Similarity 98.1%;
Matches 467; Conservative
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